

CLAIMS

Sub A1

What is claimed is:

1. A network comprising:
2 a first node, having a point code and a switching element to selectively couple the
3 node to other nodes through one or more communication channels; and
4 a second node, having a point code and a switching element to establish a first
5 communication channel with the first node, the second node to identify the first
6 communication channel with an identifier that includes, at least, the point code associated
7 with the first node and the point code associated with the second node.

Sub A2

1 2. The network of claim 1, wherein the first node and the second node further comprise
2 a network identifier to identify the network. *Table 4*

Sub A3

1 3. The network of claim 2, wherein the second node is to identify the communication
2 channel with the identifier that further includes the network identifier. *Table 4*

Sub A4

1 4. The network of claim 2, wherein the second node further comprises a
2 second point code.

1 5. The network of claim 4, wherein the second node establishes a second
2 communication channel with the first node, identified by a second identifier that includes the
3 point code associated with the first node and the second point code associated with the
4 second node.

1 6. The network of claim 5, wherein the second identifier further includes the network
2 identifier.

Sub A4
1 7. The network of claim 6, wherein the second node has a second network identifier to
2 identify a second network, and establishes a third communication channel identified by an
3 identifier that includes one of the two point codes associated with the second node and the
4 second network identifier.

Sub A4
1 8. The network of claim 7, wherein the second node implements Common Channel
2 Signaling System No. 7 (SS7) protocols to manage one or more of the first, second, or third
3 communication channels.

Sub A4
1 9. The network of claim 8, wherein an Integrated Services Digital Network User Part
2 (ISUP) layer residing on the second node creates the second and third identifiers to identify
3 the second and third communication channels.

Sub A4
1 10. A node comprising:
2 a switching element to selectively couple the node to a communication channel with
3 another node; and
4 a communication channel identifier agent (CCIA) coupled to the switching element to
5 identify the communication channel, the CCIA to include one or more originating point
6 codes (OPCs), the one or more OPCs to identify the node, and one or more destination point
7 codes (DPCs), the one or more DPCs to identify one or more remote nodes, the CCIA to use
8 at least one of the one or more OPCs and one of the one or more DPCs to identify the
9 communication channel.

1 11. The node of claim 10 wherein the CCIA creates an interface identifier (IntfID), the
2 IntfID including, at least, one of the one or more OPCs and one of the one or more DPCs.

1 12. The node of claim 11 wherein the IntfID further includes a network identifier, the
2 network identifier to identify a network to which the switching element is to connect.

1 13. The node of claim 12 wherein the CCIA is to identify a communication channel from
2 the node to another node, with an identifier that is a combination of the IntfID and a circuit
3 identification code (CIC).

1 14. A method comprising:
2 creating a first interface identifier, the first interface identifier including at least a first
3 originating point code (OPC) designating a first node and a destination point code (DPC)
4 designating a second node; and
5 combining the first interface identifier with a circuit identification code (CIC) to
6 identify a communication channel between the first node the second node.

1 15. The method of claim 14 further comprising:
2 creating a second interface identifier, the second interface identifier including at least
3 a second OPC designating the first node and the DPC designating the second node; and
4 combining the second interface identifier with the CIC to identify a second
5 communication channel between the first node and the second node.

1 16. The method of claim 14 wherein the first interface identifier further includes a first
2 network identifier to identify a network containing the first node.

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1 17. The method of claim 16 wherein the first node implements the Common Channel
2 Signaling System No. 7 (SS7) protocols to manage the first communication channel and the
3 second communication channel.

1 18. The method of claim 16 further comprising:
2 creating a third interface identifier, the third interface identifier including at least one
3 of the two originating point codes (OPCs) designating the first node, a second destination
4 point code (DPC) designating a third node, and a second network identifier to identify a
5 network containing the third node; and
6 combining the third interface identifier with the CIC to identify a third
7 communication channel between the first node and the third node.

1 19. The method of claim 18 wherein the first node implements the SS7 protocols to
2 manage the third communication channel.

1 20. A method comprising:
2 receiving an originating point code (OPC) to identify a node;
3 receiving a destination point code (DPC) to identify another node; and
4 generating an interface identifier, the interface identifier including at least the OPC
5 and the DPC.

1 21. The method of claim 20 further comprising:
2 receiving a circuit identification code (CIC); and
3 employing the interface identifier and the CIC to identify a communication channel
4 between the node and the another node.

1 22. The method of claim 21 further comprising:
2 receiving a second OPC, the second OPC to alternatively identify the node; and
3 generating a second interface identifier, the second interface identifier including at
4 least the second OPC and the DPC.

1 23. The method of claim 22 further comprising employing the second interface identifier
2 and the CIC to identify a second communication channel between the node and the another
3 node.

1 24. The method of claim 21 further comprising:
2 receiving a first network identifier to identify a first network and a second network
3 identifier to identify a second network;
4 generating a second interface identifier, the second interface identifier including at
5 least the OPC, DPC, and second network identifier; and
6 employing the second interface identifier and the CIC to identify a communication
7 channel between the node and a node in the second network.

1 25. The method of claim 24 wherein the node is implementing the Common Channel
2 Signaling System No. 7 (SS7) protocols to manage the communication channels.

1 26. The method of claim 25 wherein an Integrated Services Digital Network User Part
2 (ISUP) layer residing on the node employs the second interface identifier and the CIC to
3 identify the communication channel between the node and the node in the second network.

27. An article of manufacture comprising:

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an electronically accessible medium providing instructions, that when executed by
one or more processors, cause the one or more processors to
receive an originating point code (OPC) to identify a node;
receive a destination point code (DPC) to identify another node; and
generate an interface identifier, the interface identifier including at least the OPC and
the DPC.

28. The article of manufacture of claim 27, wherein the electronically accessible medium
providing instructions, that when executed by one or more processors cause the one or more
processors to
receive a circuit identification code (CIC); and
employ the interface identifier and the CIC to identify a communication channel
between the node and the another node.

29. The article of manufacture of claim 28, wherein the electronically accessible medium
providing instructions, that when executed by one or more processors cause the one or more
processors to
receive a second OPC, the second OPC to alternatively identify the node; and
generate a second interface identifier, the second interface identifier including at least
the second OPC and the DPC.

30. The article of manufacture of claim 28, wherein the electronically accessible medium
providing instructions, that when executed by one or more processors cause the one or more
processors to
receive a first network identifier to identify a first network and a second network
identifier to identify a second network;

6 make a second interface identifier, the second interface identifier including at least
7 the OPC, DPC, and second network identifier; and
8 employ the second interface identifier and the CIC to identify a communication
9 channel between the node and a node in the second network.

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